Region 3 GPRA Baseline RCRA Corrective Action Facility

Cabot Performance Materials Corporation

P.O. Box 1608
County Line Road
Boyertown, PA 19512-1608
Congressional District 6
EPA ID #: PAD002335545
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Current Progress at the Site

The Environmental Protection Agency (EPA), Region III, Environmental Response Team (ERT) conducted an investigation of the Cabot Performance Materials facility and Boyertown area farms in 1999 and 2000. A link between chemicals used by Cabot and unusual crop and livestock problems on the nearby farms was investigated. The main objective of the investigation was to identify any release of hazardous substances that endanger human health, welfare and the environment. Data on groundwater, surface water, soil, air, vegetation and cattle was collected to evaluate potential releases of hazardous substances from the facility. The conclusion of the Removal Assessment Report dated November, 2000 is: "no action is required to protect human health from hazardous substances in the soil, surface water, sediment, air, or vegetation in the assessed area."

The investigation conducted by the Cabot's contractor in June-July of 2000 concludes: "residential locations are not affected by the Cabot's contaminants, potential concern for human health is due to natural sources."

A comparison of the groundwater historical data showed improvement of the groundwater quality at the plant over the past 10 years; the volatile organic compounds (VOC) concentrations in the groundwater decreased. This indicates that natural attenuation processes are occurring in the aquifer beneath the facility.

The Cabot Performance Materials Corporation Environmental Indicators have been met. The facility will continue the annual groundwater monitoring for the natural attenuation indicators and trichloroethene (TCE) and its breakdown products. Cabot will continue to monitor the Swamp Creek stream, surface water and sediment.

Site Description

The Cabot Performance Materials Corporation (Cabot) is located at County Line Road in Boyertown, PA. The facility occupies 190 acres in an agricultural and industrial area. Facility operations began in 1950. The facility manufactures tantalium (Ta) and niobium (Nb)

metals through the processing of raw ore. The final products are metal powder, wire, or sheet products used in the electronics and medical fields. The chemicals used in the production include uranium ores, methyl isobutyl ketone (MIBK), hydrofluoric acid (HF), ammonia & sodium. The residual slurry left over from the manufacturing process is neutralized and sent to two on-site lined surface impoundments to settle. The discharge from the surface impoundments goes to Swamp Creek and to the Berks-Montgomery counties sewage treatment plant. The residual solid metal salts are shipped off-site.

Site Responsibility

RCRA Corrective Action activities at this facility are being conducted under the direction of EPA Region 3 with assistance from the PADEP.

Contaminants

The groundwater in the area is impacted by specific natural conditions, agricultural activities and the Cabot Performance Materials facility. The main contaminants in the groundwater at the southwest portion of the Cabot Performance Materials facility site are boron, fluoride, chloride, sulfate, manganese, calcium, as well as volatile organic compounds (VOC) TCE and its degradation products. The groundwater at the northeast area of facility is contaminated with chloride, sulfate, selenium, and calcium. Low levels of VOCs related to pesticides also were detected in the facility groundwater.

Residential locations are not affected by the Cabot's contaminants; the potential concern for human health in the residential wells is due to "natural sources." The majority (about 70%) of residential drinking water wells are exhibit an increased boron concentration. A number of residential drinking water wells contain contamination (aluminum, arsenic, boron, copper, fermium, manganese, lead, selenium, vanadium) above levels of potential concern for human health due to natural sources.

Several Streams - Swamp Creek, Middle Creek and the tributaries in the area of Cabot were sampled by EPA in 1999-2000. An Aquatic Biology Investigation of Swamp Creek indicated good overall stream quality. The March 1999 monitoring of Cabot's discharges of treated process water in the Swamp Creek for floride, molybdenum, selenium, zinc, and other monitored pollutants met NPDES Permit levels. Cabot's groundwater has no measurable impact on the Swamp Creek surface water quality. Sediment sampling from the Swamp Creek shows that "the controlled discharge [from Cabot] does not pose a threat to the aquatic environment."

Soil in a southeast part of the facility contaminated with niobium, tantalum, lead, selenium and zinc. Few soil samples registered elevated levels of uranium, manganese, aluminum, magnesium, cobalt, barium and copper. It was concluded in the EPA, Region III, November 2000, Removal Assessment Report that "no soil cleanup is necessary to protect human health," also "the air release is not determined to pose a threat to human health or the environment [at the Cabot Performance Materials Corporation, Boyertown, Pennsylvania site]."

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For more information about EPA's corrective action web page, including Environmental Indicators, please visit our site at: www.epa.gov/reg3wcmd/correctiveaction.htm

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